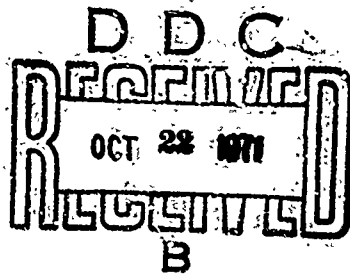


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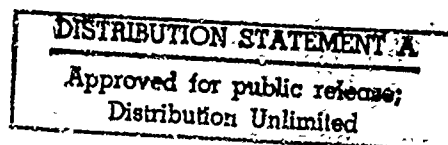
SOCIAL FORECASTING AND THE PROBLEM OF CHANGING VALUES
With Special Reference to Soviet and East European Writings

Fred Charles Iklé

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Fred Charles Iklé*

The Rand Corporation, Santa Monica, California

This paper has been prepared for the session on social forecasting at the 1970 Congress of the International Sociological Association. As such, it is primarily addressed to social scientists from the USSR and East European countries rather than to an American audience. It has been submitted for publication in Futures, an international quarterly.

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By Fred Charles Iklé

(The Rand Corporation, Santa Monica, California, U.S.A.)

Science has always been concerned with the relationship between the past and the future, particularly in the sense that scientific explanation and prediction are so closely connected. And in everyday life, men of practical affairs have always tried to look ahead. What, then, is new today about our interest in the future? In part, our concern with and attention to the future has merely become more explicit. In part, many scientists want to bring their work more directly to bear on forecasting, often through large interdisciplinary efforts. In part, new methods have been developed for coping with future uncertainties, other problems of complex predictions, and the relationship of uncertainty and prediction to planning.

Thus, in the 1960's, a sudden increase occurred in writings, conferences, and projects concerned explicitly with the future of society and man, first in the United States and Western Europe, later also in Japan, Eastern Europe, and the Soviet Union. In all these countries, a large part of the early output -- perhaps too large a part -- has been devoted to questions of definition. Particularly in East German and Soviet writings, the distinction between planning, on the one hand, and forecasting, prognoses, or prediction, on the other, has been discussed extensively.¹

Although I do not wish to prolong discussions of definition (for they quickly become wasteful), I do have to define a few terms to clarify the relationships between forecasting and values -- the subject of this article.

*This is a revised version of a paper delivered at the Congress of the International Sociological Association in Varna, Bulgaria, September 1970.

¹Adolf Bauer, "Zum Verhältnis von Prognose und Planung" in Gesellschafts Prognostik, ed. by Günter Heyden (Berlin [DDR]: Deutscher Verlag der Wissenschaften, 1968), pp. 150-157; Herbert Edeling, ibid., pp. 24-33; Ygor Bestuzhev-Lada, "Forecasting - An Approach to the Problems of the Future," International Social Science Journal, XXI (1969), pp. 526-534; R. A. Safarov, "Prognostirovanie-Funktsiia Sotsialisticheskogo Gosudarstvennogo Upravleniia," Sovetskoe Gosudarstvo i Pravo, No. 10, 1969, pp. 108-113; and Waldemar Rolbiecki, "Prognostication and Prognoseology," in Mankind 2000, ed. by Robert Jungk and Johan Galtung (London: Allen & Unwin, 1969), pp. 278-285.

For this purpose, I am briefly recapitulating here some distinctions and ideas developed earlier:² The usefulness of statements about the future (whether called "forecasts," "predictions," or "prognoses" -- I make no distinction among these words) must be judged according to the purpose that they serve. In order to be useful for planning, forecasts must be linked, or permit being linked, to policy options. That is to say, only if statements about the future can be placed into a context that describes the consequences of alternative courses of action open to us, can they help us to shape the future more to our liking.

Frequently, statements about the future are being made that cannot be related to alternative courses of action, and hence cannot be used to guide planning. Such predictions might serve purposes of entertainment, or perhaps provide some desired spiritual edification. Examples are all cosmologies, most utopias and anti-utopias, and many descriptions of life in the year 2000 or of technological advances in the twenty-first century. Through subtle ways, nonetheless, such writings sometimes can stimulate those of our predictions that serve planning purposes. But the connection remains hard to evaluate since it is so diffuse.

It is precisely this relationship between prediction and planning that we ought to focus on as something special. Because here, a body of principles becomes relevant that is not to be found anywhere else in scientific activity. For all other aspects of prediction, on the other hand, the epistemological basis is indistinguishable from the basis of scientific knowledge in general. Beyond the relationship of prediction to planning, it is therefore not appropriate to talk of "futurology" or a "science of prediction" as if it were a separate field. A scientific field that does deal with the prediction-planning relationship is statistical decision theory, although it provides only a skeleton for real life situations because of its high abstractness. Cost-benefit analysis (or its broader variant, systematic policy analysis) -- while a less rigorous scientific discipline -- seeks to capture more of complex reality than statistical decision theory does.

²Fred Charles Iklé, "Can Social Predictions Be Evaluated?" Toward the Year 2000: Work in Progress, ed. by Daniel Bell (Boston: Houghton Mifflin, 1968), pp. 101-126 [also in Daedalus (Summer 1967), pp. 733-758].

These two fields, in my view, encompass all the scientific theory that is applicable to prediction and planning in general. Other techniques of forecasting are grounded in individual scientific disciplines (such as demography, meteorology, or biology, probability calculus, etc.).³

The problem of values in social forecasting arises in three ways:

1. Changes in the values that people hold are an important praedicendum, for they will decisively influence the future of society.
2. Whoever selects among alternative courses of action and designs plans, must arrive at a preference ordering among alternative outcomes. This requires, implicitly or explicitly, a structure of values.
3. The predictor's current values affect his selection of predictions. That is to say, people try to predict those social trends or those social problems that are of concern to them today -- the things about which they care.

A useful and orderly way of visualizing the interaction of forecasts with planning is the so-called contingency table. The columns in such a table are possible future states of the world that we wish to influence, the rows are alternative courses of actions (or plans) among which we must choose, and the cell entries predict the value of the outcome that would result if we chose a particular action and one of the specified states of the world obtained.

By using a highly simplified example, I want to show the interaction among these three ways in which values affect social forecasting, and point out some difficult and delicate questions. Let us assume we are preparing plans for the construction of housing units in behalf of a metropolitan authority. One of our key forecasts will be future population size in this metropolitan area. It is customary to predict two or more population sizes to give an indication of the range of uncertainty. In our contingency table, these predictions can be viewed as columns representing different possible states of the world for which we wish to plan. The forecasts of alternative population sizes are based,

³Ibid., pp. 108-111.

implicitly or explicitly, on forecasts about changing personal values, that is, the preference of parents for having more or fewer children. The rows in our contingency table might then represent different construction programs, say, with more or fewer dwellings resulting, and the cells would show the degree of overcrowding or excess housing.

Table 1

Degrees of Overcrowding or Underutilization
Given Alternative Construction Programs
and Population Forecasts

		Future Metropolitan Population	
		Low	High
Alternative Construction Programs	A		
	B		
	C		

So far, this is all quite trivial and well known. However, a little reflection will show us that in many situations there is more than one way of mapping alternative future states of the world against alternative plans. If, instead of making plans for housing construction we were making plans for population policy, the rows and columns in our table might well be reversed. The columns could be alternative forecasts of the amount of resources (such as housing, schools, food, etc.) that we expect to become available in the future, and the rows would be alternative population policies that would give either more or less encouragement to smaller family sizes.

Table 2

Degrees of Overcrowding or Underutilization
Given Alternative Population Policies
and Forecasts of Future Resources

		Future Resources (e.g., Housing or Schools)	
		Low	High
Alternative Population Policies	A		
	B		
	C		

Legislative measures, such as the permission of non-therapeutic abortions, might be one of the plans to help bring the future population size better in line with future resources. As we know from the experience in Japan and Eastern Europe, for instance, legalization of abortion can lead to a most dramatic lowering of the birth rate. In Hungary, for example, the birth rate fell from an average of 21 in the five years prior to the legalization of abortion in 1956 to an average of 15 in the five years after.⁴ (The desire to slow down population growth was, of course, not necessarily the dominant reason for legalizing abortion in the various past instances.)

But now that we have turned our contingency table around and made population growth a subject for planning while adapting to likely future resource levels, we can easily recognize that the forecasting of future values enters not only into the columns of our contingency table (for instance, how will people's preferences affect their consumption of resources?), but also into the rows of the table, that is, into the alternative policies among which we must choose. The alternative plans that a forecaster or planner can sensibly consider are circumscribed by the values that people hold and by the values that guide legislative bodies. (In Western democratic countries the two have normally a close connection.) For instance, prohibiting parents to have more than two children would not be considered, in most countries, as being a feasible plan for bringing down population size; conversely, demanding that every able-bodied person get married at age 17 would not be considered, in most countries, as being a feasible plan for increasing population size.

In between such extremes, however, values of the population at large, as well as values that guide legislatures, do change. This is illustrated dramatically by the issue of abortion. Anyone who is planning population policies, therefore, will need forecasts as to how the values regarding the legalization of abortion might change. In East European countries, the laws have been changed on this issue in both directions since World War II. In West European countries and in the United States there has been a continuing trend over the last ten or fifteen years towards increased liberalization of restrictions on abortions. Quite clearly, this trend was not just the result of an increasing desire to slow down population growth or to do away with dangerous illegal abortions, but was to a large part made possible by changes

⁴Tietze, Christopher, "The Demographic Significance of Legal Abortion in Eastern Europe," Demography, Vol. 1, No. 1, 1964, pp. 119-125.

in values. For those concerned with social forecasting, it is a pertinent, though perhaps embarrassing question to ask whether this evolution was predictable 15 or 20 years ago.

The prediction of value changes is a difficult and neglected component of social forecasting, but it is of essential importance for any but short-term (say, under 3 or 5 years) forecasts.⁵ If a planner does not make the mistake of ignoring possible changes in values, he will be faced with the choice of taking a more passive or active attitude toward the value changes he predicts. He can remain neutral towards certain changes in values, encourage them, or oppose them.

In the above example, if we are planning population policy and predict that the relevant legislative bodies might be willing to legalize abortion, this choice means: either we support such legalization by recommending it to the law-makers; or we stay neutral, simply making contingent plans for situations with and without legalization; or we oppose legalization of abortion because of certain values we might hold, even though as population planners we might be wanting to obtain a slower growth rate. For each of these possibilities, one can actually find examples from different countries. Thus, in Japan around 1950 population planners were among those who urged the legislature to legalize abortion. By contrast, in India during the 1950s, population planners, by and large, recommended various population control measures other than easier abortions, and in some instances explicitly recommended against legalizing abortions because of the values they held.

In other situations, the interaction between planning and the prediction of changes in values goes even deeper. Take architecture and city planning. The layout of cities and type of dwellings will, to some extent, impose a style of life on the inhabitants. Conversely, the inhabitants' preferences for a certain life style can be considered as imposing guidelines on the architects and city planners. But which preferences should be guiding? Those of today or those that one might forecast for the next generation (that is,

⁵I. B. Bestuzhev-Lada, in his important new book, Okno v budushuyu: sovremennye problemy sotsial'nogo prognozirovaniia [A Window to the Future: The Presentday Problems of Social Forecasting] (Moscow, 1970), makes the point that there has been a lack of research on future developments of moral-ethical norms and on how these developments will relate to the modern scientific-technological revolution (pp. 146, 197-8). These questions have also been neglected by Western social scientists (in part, perhaps, because they are so difficult to study).

the people who will still have to live in the cities and dwellings that are being built over the next decade)?

This question has been addressed by East German authors, who recognize that city planning requires not only technological forecasts but also social and cultural forecasts regarding the needs, preferences, and style of life of the future inhabitants. However, the authors criticize forecasts for city planning that have been prepared in Western countries for assuming into the future the individualistic style of life of the "late bourgeoisie society."⁶ This argument raises, though not openly, the question to what extent planners should try to change people's preferences and to what extent people's preferences that can be forecast for the future should lead to changes in plans. Should city planners try to encourage a reduction in the "individualistic" style of life, or should they try to accommodate whatever preferences the inhabitants might have in the future?

Both new technology and changes in people's values will continue to bring about vast social changes. There is a danger that planners take too narrow a view of the requirements of a future society as well as of its opportunities. This danger might be reduced by separating the forecasting from the planning function of government organs. The lengthy discussions in Soviet writings about the distinction between "planning" and "prognosis" (or "forecasting") seem to stem, in part, from a concern that the planning organs might confine themselves to those forecasts that would help them preserve the existing situation and their bureaucratic prerogatives. Some Soviet authors expressed such concern regarding the proper administrative location of forecasting activities.⁷

⁶ Bernd Bittighöfer and Herbert Kempf, Erkundung der Zukunft (Berlin [DDR]: Dietz, 1969), pp. 24-25.

⁷ R. A. Safarov, op. cit., argues that the ministries and not any other organs ought to define the social needs in their respective branches. He recommends a certain amount of competition among centers where social prognoses are being conducted, so as to guard against institutional interests and preconceptions.

The problem of insufficient adaption to social change has been highlighted by Radovan Richta, et al., Civilization at the Cross Roads [Civilizacija na Razcesti] (Bratislava: Publishing House for Political Literature, 1968). The authors point out that: "socialist instruments have not yet

Thus, planners' attitudes towards future developments in people's values can range from a desire to adapt to these changing values, on the one hand, to strenuous attempts of preserving the planners' own values, on the other. Given a willingness to adapt, forecasting takes on the function of determining future consumption patterns and desires among the population at large so that production plans, or any other plans, will serve these preferences.⁸

At the other end of the range, the planners act as guardians of their values, which they consider as universally "correct." Such a conservative stance is, of course, maintained by the more centrally organized religious institutions and by those political parties that adhere to a fixed set of beliefs. Often, these planners argue that they know better than the people for whom they plan, what is Good and Evil, or that they know the road to real happiness for their "wards." In some instances, such planners conceal their attempt to preserve their own values over those they fear might spontaneously develop among the population for whom they plan, by using a single set of predictions regarding the future of society and by arguing, in a sense, that they are the instrument who makes this prediction self-fulfilling.

Frequently, these planners present their single forecast regarding the future of society as a development that is somehow determined to occur, thereby hiding the fact that they seek to perpetuate their own preferences over those that the next generations might wish to adopt. That is to say,

been worked out which could sufficiently reward risk and penalize passivity and backwardness. The administrative-directive system of management... evokes a multitude of secondary, non-social interests in preserving the given situation (opposition to new technology, to the elimination of unnecessary jobs, etc.), and these interests draw society into the power of random, extensive motion that is in conflict with the direction of the scientific and technological revolution."

⁸This approach underlies what is called "market research" in free enterprise economies, which has a counterpart in those countries where the Communist party holds the monopoly of power in the attempts to determine the "needs" of individual consumers. For instance, the East German author Günter Söder argues that individual preferences are being recognized in a centrally planned economy through "Bedarfsforschung" (Soziologische Prognosen und subjektiver Faktor," Deutsche Zeitschrift für Philosophie, Vol. 11, Part 2, 1963, p. 1326).

their planning serves and permits only those developments and changes in society that do not disturb their forecast.⁹

Lastly, let us consider the third mode in which values affect social forecasting: the influence of contemporary preferences and interests on the selection of the topics to be forecast. This problem, of course, is familiar to sociologists since it belongs to a well-established branch of sociology -- the Sociology of Knowledge.¹⁰ Analogous to the historiographer

⁹"Stability of a social system," according to the East German author Hermann Ley, includes the capacity to absorb disturbances and implies that it will be possible to prevent these disturbances from destroying the system by keeping their impact within the limits of a "dynamic development." Ley argues that in "late-bourgeois" society, "by contrast," stability means the preservation of the "Capitalist ruling class." ("Prognose und Beherrschbarkeit" in Heyden, op. cit., p. 86.)

But doesn't the "contrast" lie in the opposite direction? As many Soviet and East European reviews of the Western literature on social forecasting have pointed out, the Western authors can comfortably envisage a much wider range of alternative future developments than their colleagues in the countries where the Communist party holds the monopoly of power. (See, for instance, the interesting review of Daniel Bell's article "The Post-Industrial Society" by Iu. K. Ostrovitianov, Voprosy filosofii, 1969, No. 7; or the review of H. Kahn and A. J. Wiener's predictions for the year 2000 by Klaus Linger in Deutsche Aussenpolitik, 1969, pp. 1044-1068.) In the so-called "late-bourgeois" society, "dynamic developments" can be much more readily accommodated and planned for, precisely because planners and forecasters in that society are not constrained to force social developments into the fulfillment of a single forecast, a forecast whose authorship dates from the early 19th century when social, technological, and scientific conditions were, of course, vastly different from what they are today.

In a criticism that makes a similar point, but confined to a much narrower sphere, A. M. Gendin (Krasnoyarsk) intimates that the USSR economic plan amounts to a self-fulfilling prophecy, giving planners the illusion that their plan is correct and thus hindering a critical evaluation of planning practice. ("The 'Oedipus Effect' and Methodological Problems of Social Forecasting," Voprosy filosofii, 1970, pp. 80-89.) [A. M. Gendin has some interesting disagreements with points in my article, "Can Social Predictions Be Evaluated?", regarding the "truth" of self-fulfilling and self-defeating predictions -- a tricky problem of definitions and logic that leads beyond the scope of this paper.]

¹⁰There seems to be considerable agreement on this effect, both among East European and Western authors. For instance, Jan Szczepanski writes, "historically shaped modes of thought about social matters penetrate into sociological theories almost unobserved." (Marxist Sociology in the Worldwide Sociological Movement," Voprosy filosofii, 1969, pp. 14-21.) And Johannes Rekus points out that "many find it difficult, in their prognostic thinking, to free themselves from the contemporary scene.... We must view the world of tomorrow through the eyes of tomorrow." (In Heyden, op. cit., p. 75.)

who looks at historical writings of the past from the point of view of the historian's values and selectivity, one can examine past predictions for the influence of the social problems at the time the predictions were made.

Here lies a fertile field for further sociological research which ties in with the current interest in "social indicators." How are a predictor's selections and measurements of social trends affected by his current concerns?¹¹

Economists are less troubled than sociologists by the question as to which trends, indicators, or problems they should make forecasts about. Indicative of this difference between economic and sociological forecasting are the difficulties that American social scientists have encountered in their recent attempt to launch an annual Social Report for the United States, which was meant to complement the long-established annual Economic Report.¹² Of course, even in the economic sphere, the selection of measurements and categories for forecasting has to be revised to keep the forecasts relevant for newly discovered social problems.

During the last few years, for instance, economists in industrialized Western countries became increasingly aware that they lacked adequate measurements and projections for what they call "externalities." "Externalities" are the costs (benefits) of economic activities that spill over the legal boundaries within which private firms or government enterprises are forced (permitted) to compensate (collect) for the damage (gains) that they cause. With the surging interest in pollution and other environmental effects, economists have at last woken up to the fact that their figures and forecasts omitted this important aspect of economic activity. And not too far behind the economists, jurists and legislators are gradually discovering that these "externalities" are not due to the laws of nature or

¹¹ For a recent contribution to this problem, see Peter J. Henriot, "Political Questions About Social Indicators," The Western Political Quarterly (1970), pp. 235-255. A related earlier series of articles are: Richard C. Fuller and R. R. Myers, "Some Aspects of a Theory of Social Problems," American Sociological Review (1941), pp. 24-31, and "The Natural History of a Social Problem," ibid. (1941), pp. 320-328; and Edwin M. Lemert, "Is There a Natural History of Social Problems?", ibid. (1951), pp. 217-223.

¹² Eleanor Sheldon, "Notes on Social Indicators: Promises and Potential," Policy Sciences (1970), pp. 97-111.

laws of economics but to their own 19th century patchwork of legal structure (in Anglo-Saxon law, primarily the so-called "law of nuisances").

An even more serious omission can be found in the published data on economic trends in the Soviet Union: Soviet economic statistics, up to now, have been silent about the distribution of income among the population. Even though the question of economic classes and economic equity plays a most prominent role in Soviet political and economic writings, data are entirely lacking on such most relevant aspects as, say, second and third quartile means in personal income distribution (or a more complete Lorenz curve), or distribution of personal income means and medians among different age and ethnic groups -- all data that are more or less readily available in advanced Western countries and even in several less developed countries.

The question of income distribution can be subsumed under a broader choice that forecasters face in describing social trends. Depending on their point of view, they can emphasize future attributes either of the state or of man. Such projections as gross national product, production figures for industries, national and local budgets, and population size of countries or cities, all describe the future of the state or its sub-units. On the other hand, personal income distributions, expectation of life, occupation statistics, differences in working year and working life, describe the future of man. Of course, the latter type of data inevitably have to be in an aggregated form, otherwise we would end up with a set of data for every individual. In social forecasting, we must pay more attention to what is a desirable balance between forecasts about the state and forecasts about man.